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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO |
|--|----------------|----------------------|-------------------------|-----------------|
| 09/694,789 | 10/24/2000 | Charles E. Farley | 05242.87031 | 8595 |
| | 590 06/05/2002 | | | |
| Banner & Witcoff, Ltd. | | | EXAMINER | |
| 1001 G Street, N.W. Washington, DC 20001-4597 | | | FORTUNA, JOSE A | |
| , | | • | ART UNIT | PAPER NUMBER |
| | | | 1731 | 10 |
| | | | DATE MAILED: 06/05/2002 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | - ME/ |
|--|--|--|--|
| | | Application No. | Applicant(s) |
| Office Action Summary | | 09/694,789 | FARLEY ET AL. |
| | | Examiner | Art Unit |
| | | José A Fortuna | 1731 |
| | The MAILING DATE of this communication ap | pears on the cover sheet v | vith the correspondence address |
| THE - External control | IORTENED STATUTORY PERIOD FOR REPLEMAILING DATE OF THIS COMMUNICATION. The since the may be available under the provisions of 37 CFR 1. TO SIX (6) MONTHS from the mailing date of this communication. TO period for reply specified above is less than thirty (30) days, a replement of the provisions o | 136(a). In no event, however, may a by within the statutory minimum of the law will apply and will expire SIX (6) MC the cause the application to become A | reply be timely filed irty (30) days will be considered timely. NTHS from the mailing date of this communication. ABANDONED (35 U.S.C. § 133). |
| 1)⊠ | Responsive to communication(s) filed on 20 | March 2002 . | |
| 2a) <u></u> ☐ | This action is FINAL . 2b)⊠ T | his action is non-final. | |
| 3) | closed in accordance with the practice unde | vance except for formal m r <i>Ex parte Quayle</i> , 1935 C | atters, prosecution as to the merits is c.D. 11, 453 O.G. 213. |
| - | tion of Claims | | |
| 4)⊠ | Claim(s) 1-10 is/are pending in the application | | |
| | 4a) Of the above claim(s) 9 and 10 is/are with | idrawn from consideration | • |
| · — | Claim(s) is/are allowed. | | |
| • | Claim(s) <u>1-8</u> is/are rejected. | | |
| • | Claim(s) is/are objected to. | | |
| • | Claim(s) are subject to restriction and tion Papers | or election requirement. | |
| | The specification is objected to by the Examir | | |
| 10) | The drawing(s) filed on is/are: a) acc | | |
| | Applicant may not request that any objection to | | |
| 11) | The proposed drawing correction filed on | | disapproved by the Examiner. |
| | If approved, corrected drawings are required in a | | |
| • | The oath or declaration is objected to by the E | xaminer. | |
| - | under 35 U.S.C. §§ 119 and 120 | | |
| • | Acknowledgment is made of a claim for forei | gn priority under 35 U.S.C | c. § 119(a)-(d) or (f). |
| а |) ☐ All b) ☐ Some * c) ☐ None of: | | |
| | 1. Certified copies of the priority docume | | |
| | 2. Certified copies of the priority docume | | |
| * | 3. Copies of the certified copies of the prapplication from the International Esee the attached detailed Office action for a li | Bureau (PCT Rule 17.2(a) |). |
| | Acknowledgment is made of a claim for dome. | | |
| | a) The translation of the foreign language packnowledgment is made of a claim for dome | provisional application has | been received. |
| Attachme | | | |
| 1) No | tice of References Cited (PTO-892) tice of Draftsperson's Patent Drawing Review (PTO-948) ormation Disclosure Statement(s) (PTO-1449) Paper No(s) | 5) Notice | ew Summary (PTO-413) Paper No(s) of Informal Patent Application (PTO-152) |

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DETAILED ACTION

Election/Restriction

1. Applicant's election with traverse of group I in Paper No. 9 is acknowledged. The traversal is on the ground(s) that the examples in the M.P.E.P., that unrelated inventions are not capable of use together. This is not found persuasive because the method of making a composition, i.e., method of emulsifying, cannot be and it is not disclosed to be capable of being used together with the paper produced with the composition. The composition per se is capable of being used together in the paper, but this has not being claimed, and even if the composition is claimed then a restriction is also possible and proper, because the composition can be used in a materially different process, such as in the textile or food industries. Note that the restriction requirements are met, i.e., they are not capable of being used together, see above and they have different modes of operation, functions and effects, see previous action

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 U.S.C. § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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3. Claims 1, 4-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada et al., JP 09111692 A, (Derwent Abstract and Japanese Patent Office computer translation has been used as the translation).

Yamada et al. teach a size emulsion comprising a reactive size, alkenyl succinic anhydride, ASA, emulsified with a starch grafted acrylamide co-polymer, see abstract and pages 1-2 of the translation. Yamada et al. teach in page 2, [0014], that the proportion of starch to acrylamide monomers is between 10-95% of starch and 5-90% by weight of the acrylamide monomer, which falls within the claimed range.

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- 4. Claims 1-2 and 4-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Aizono et al., JP 2000265389 A.

Aizono et al. teach a size emulsion comprising a reactive size, alkenyl succinic anhydride, ASA, emulsified with a starch grafted acrylamide co-polymer, see abstract and sections [0016]-[0027] of the translation. Aizono et al. teach in sections [0017]-[0021], that the proportion of starch to acrylamide monomers is between 5-85% of starch and 15-95% by weight of the acrylamide monomer, which falls within the claimed range. Aizono et al. also teach, see section [0023], the use of a surfactant to help in the emulsification of the mixture.

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Claim Rejections - 35 U.S.C. § 103

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 6. The factual inquiries set forth in *Graham v. John Deere Column.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
 - 1. Determining the scope and contents of the prior art.
 - 2. Ascertaining the differences between the prior art and the claims at issue.
 - 3. Resolving the level of ordinary skill in the pertinent art.
 - 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aizono et al.

Aizono et al. teach the use of surfactants to help in the emulsification of the mixture of ASA and starch grafted acrylamide, but they are silent with respect to the use of sodium dioctyl sulfosuccinate. However, the surfactants taught by Aizono et al. are equivalent to the claimed one and it has been held that "[W]here two equivalents are interchangeable for their desired function, substitution would have been obvious and thus, express suggestion of desirability of the substitution of one for the other is unnecessary." *In re Fout* 675 F. 2d 297, 213 USPQ 532 (CCPA 1982); *In re Siebentritt*, 372 F.2d 566, 152 USPQ 618 (CCPA 1967). Thus the use of equivalents surfactants would have been obvious to one of ordinary skill in the art absent a showing of unexpected results.

Conclusion

- 8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure in the art of "Emulsifying Alkenyl Succinic Anhydride.".
- 9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to José Fortuna, whose telephone number is (703)305-7498. The examiner can normally be reached on Monday-Friday from 9:30 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin, can be reached on (703)308-1164. The fax number for this group is (703)305-7115.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703)308-0661.

When filing a FAX in group 1730, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other

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communication with the PTO that are not for entry into the file of the application. This will expedite processing of your papers.

José A. Fortuna May 28, 2002

PRIMARY EXAMINER
ART UNIT 1731